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ROUTING SECTION
CURRENT SERIAL RECORDS

Cotton Fiber and Processing Test Results

CROP of

1970



Consumer and Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 November 13, 1970

This is the seventh of a series of reports of fiber and processing test results from the 1970 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as AID 344, Summary of "Cotton Fiber and Processing Test Results, Crop of 1969, May 1970." These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1970

Discussion of Test Results

Cotton Division laboratories of the Consumer and Marketing Service, USDA, report that average values for medium staple samples tested through October 6 show little change in fiber properties compared to last season. Zero gage fiber strength is lower than a year ago while 1/8-inch gage strength is about the same. Yarns spun from these samples are weaker with lower appearance grades and about the same number of imperfections. Average spinning potential yarn number is higher than last season.

Southwestern short staple samples show longer fibers than a year ago. Fiber strength at 1/8-inch gage is higher. Shirley Analyzer nonlint content is higher while picker and card waste is a little lower. Yarn quality is about the same as last season. Average spinning potential yarn number is higher.

Southeastern medium staple samples are shorter and finer than last season. Picker and card waste is lower while Shirley Analyzer nonlint content is slightly higher. Yarn strength and appearance is about the same as a year ago but the yarns show fewer imperfections.

South Central medium staple samples are shorter than last season. Fibers are weaker and picker and card waste is lower. Yarns spun from these samples are weaker while other yarn properties are about the same.

Southwestern medium staple samples are longer than a year ago. Zero gage fiber strength is lower while 1/8-inch gage strength is higher. Shirley Analyzer nonlint content is higher. Yarns spun from these samples are weaker and show more imperfections. Average spinning potential yarn number is considerably higher than last year.

Western medium staple samples show little fiber property change from 1969. Zero gage fiber strength is a little lower. Picker and card waste is lower. Yarns spun from these samples are weaker. Average spinning potential yarn number is higher.

Western long staple samples tested to date show finer fibers than a year ago. Fiber strength at 1/8-inch gage is stronger. Shirley Analyzer nonlint content and picker and card waste are lower. Yarns show lower appearance grades and more imperfections than last year.

Table 1.---Cotton: Averages of fiber and processing tests from selected gin points in the United States through November 6, 1970
1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results										
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.						
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections							
				Inches			Pct.	Rdg.				Mpsi	G/tex	Pct.	Pct.	Lbs.	Index	No.
Short Staple:																		
Southwest																		
1969	21	0.91	46	4.3	88	19.8	3.4	6.9	89	117	25	38						
1970	16	0.96	46	4.4	87	21.2	3.9	6.5	91	117	24	45						
Medium Staple:																		
Southeast																		
1969	45	1.10	46	4.8	84	23.2	3.2	7.1	105	102	22	61						
1970	59	1.08	45	4.5	83	23.0	3.4	6.6	104	103	17	62						
South Central																		
1969	108	1.10	46	4.8	85	23.1	2.8	6.4	109	114	18	61						
1970	65	1.08	45	4.8	82	22.3	2.9	5.9	102	112	17	63						
Southwest																		
1969	31	1.04	46	4.5	88	22.1	2.7	6.2	109	123	18	59						
1970	34	1.09	46	4.5	85	22.8	3.2	6.0	105	120	21	66						
West																		
1969	13	1.09	45	4.5	92	24.6	2.8	6.2	117	115	21	64						
1970	19	1.10	45	4.4	90	24.6	2.7	5.6	114	117	21	67						
U.S. Average																		
1969	197	1.09	46	4.7	86	23.0	2.9	6.5	109	113	19	61						
1970	177	1.08	45	4.6	84	22.9	3.1	6.1	105	111	18	64						
Long Staple:																		
Southeast 1970																		
	11	1.15	45	4.7	82	23.3	4.6	8.7	110	104	20	66						
South Central 1970																		
	1	1.13	43	4.9	86	22.6	3.9	8.7	108	100	26	67						
West																		
1969	3	1.18	46	4.2	94	27.5	3.5	8.1	135	100	20	77						
1970	3	1.17	45	3.9	95	28.6	2.9	7.5	136	90	34	77						
Significant dif- ference 2/																		
		0.02	2	0.2	2	0.5	0.5	0.5	4(22s) 2(50s)	5	2	3						

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent-ial		
				2.5% span	Unif		Zero Gage	1/8" Gage			Gra	Yel		8s or 74 tx	22sor 27 tx	Pct	Pct	8s or 74 tx	22sor 27 tx	Pct	Pct		8s or 74 tx	22sor 27 tx
SOUTHWESTERN AREA																								
CENTRAL TEXAS																								
FORNEY																								
2	SLM LT SP	42	29	0.88	43	4.5	85	19.8	LANKART 57	3.2	4	4	6.7	99 PERCENT	78	5.9	4.9	120	120	38	27	33		
ITASCA																								
2	SLM LT SP	42	30	0.92	45	5.0	89	20.4	LANKART 57	4.3	4	5	7.8	100 PERCENT	76	5.6	4.6	120	110	30	20	32		
LA PRYOR																								
3	LM LT SP	52	34	1.04	45	3.8	92	22.1	WATSON GL 16	6.6	5	3	7.9	100 PERCENT	96	6.1	5.3	110	80	75	48	52		
NORTHWEST TEXAS																								
ANSON																								
1	MID LT SP	32	30	0.90	45	4.5	88	21.3	LANKART 611	3.0	2	4	5.9	100 PERCENT	90	6.8	6.1	120	120	36	22	43		
ROSCOE																								
1	MID LT SP	32	30	0.93	46	4.9	88	19.8	WESTERN STRMPRF	3.0	2	4	6.2	85 PERCENT	90	6.4	5.1	130	120	29	16	38		
STAMFORD																								
1	MID LT SP	32	30	0.90	46	5.0	82	20.4	LANKART 57	3.6	2	4	6.0	99 PERCENT	87	6.8	5.7	120	120	42	22	38		

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
No	Grade		Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- tial			
	Name	Code		2.5% span	Unif.		Zero	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx				
32s				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No				
SOUTHEASTERN AREA																									
ALABAMA																									
ATMORE																									
3	SLM	LT SP	42	34	1.06	44	4.5	82	23.1	5.7	3.7	4	4	85 PERCENT	27	6.3	4.5	90	80	19	16	55			
CENTREVILLE																									
2	LM		51	33	1.01	46	4.9	86	22.3	4.9	3.9	3	3	85 PERCENT	28	5.8	4.3	110	90	12	14	53			
CHEROKEE																									
3	SLM		41	34	1.10	45	4.2	81	22.5	6.6	3.0	3	3	85 PERCENT	33	7.0	5.5	100	80	25	21	60			
DUTTON																									
1	LM		51	34	1.04	43	3.5	81	21.4	5.8	4.4	3	3	80 PERCENT	35	6.4	5.0	90	70	31	28	57			
FAYETTE																									
2	SLM	LT SP	42	34	1.05	44	4.5	81	21.6	5.2	3.8	4	3	80 PERCENT	35	6.5	5.2	100	80	25	21	59			
HOLTVILLE																									
3	LM		51	35	1.14	45	4.1	81	23.4	5.5	3.4	3	3	99 PERCENT	40	6.6	5.2	100	70	32	20	68			
HURTSBORO																									
3	MID		31	34	1.05	45	4.4	86	22.2	4.6	1.5	1	3	90 PERCENT	31	5.8	4.3	110	90	9	7	60			
LA FAYETTE																									
2	LM	LT SP	52	34	1.08	45	4.6	80	21.3	5.2	3.6	3	4	80 PERCENT	31	6.3	5.1	110	90	11	8	60			
LEIGHTON																									
3	SLM	LT SP	42	34	1.06	45	4.9	81	22.0	5.7	2.8	3	3	95 PERCENT	29	6.2	4.8	100	80	23	15	57			
RED LEVEL																									
1	SLM	LT SP	42	34	1.04	45	4.6	82	22.7	5.7	5.3	3	4	80 PERCENT	25	5.8	4.2	90	70	19	15	50			
2	LM	LT SP	52	34	1.09	46	4.2	78	22.0	5.5	3.3	3	3	9.0	29	5.8	4.2	80	70	46	35	53			
ST. CLAIR																									
3	LM		51	34	1.10	45	4.5	82	23.1	4.9	4.0	2	3	100 PERCENT	36	6.6	5.4	100	80	24	20	60			
GEORGIA																									
COLBERT																									
2	SLM	LT SP	42	34	1.08	47	4.8	83	22.2	5.4	5.8	2	3	100 PERCENT	36	6.8	5.2	110	90	14	11	65			

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8" Gage	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential	
				2.5% span	Unif.		Zero Gage	Mpsi			G/tex	Pct		Pct	Gra	Yel	22s or 27 tx	Lbs	22s or 27 tx	50s or 12 tx	22s or 27 tx		50s or 12 tx
32s				In	Pct	Rdg				Pct	Pct	No	No	Pct	Lbs	Pct	Pct	No	No	No	No	No	
SOUTH CENTRAL AREA --- (Continued)																							
ARKANSAS --- (Continued)																							
LEACHVILLE																							
2 SLM	41	34	1.08	45	4.6	86	21.0	5.8	2.8	3	3	3	100 PERCENT	30	5.2	3.5	110	90	22	20	60		
MARMADUKE																							
2 SLM	41	34	1.09	46	4.7	81	21.7	7.1	2.7	3	3	3	85 PERCENT	32	5.6	4.1	120	100	16	14	63		
PARKIN																							
1 SLM	41	34	1.09	45	4.4	82	22.3	6.2	3.4	3	3	3	100 PERCENT	38	5.9	4.5	120	100	12	9	67		
PROCTOR																							
2 SLM	41	34	1.03	44	4.7	79	20.3	6.2	3.2	3	3	3	100 PERCENT	31	5.9	4.1	120	90	16	12	55		
WYNNE																							
2 SLM	41	34	1.08	45	4.6	80	23.3	7.6	3.1	2	2	2	100 PERCENT	34	6.0	4.5	120	100	19	14	64		
LOUISIANA																							
CHENEYVILLE																							
2 SLM	41	34	1.07	45	4.9	83	21.9	6.9	2.5	2	3	3	75 PERCENT	36	6.1	4.5	110	90	20	16	65		
LAKE PROVIDENCE																							
2 LM	51	34	1.09	45	4.3	82	22.5	6.4	3.8	3	3	3	100 PERCENT	36	5.8	4.4	110	90	34	24	63		
MONROE																							
2 SLM	41	35	1.10	44	4.1	81	22.7	7.5	3.2	2	3	3	100 PERCENT	39	6.4	4.8	110	80	21	17	64		
SHREVEPORT																							
2 SLM	41	34	1.10	45	4.0	82	22.0	7.2	3.0	3	3	3	100 PERCENT	37	6.2	4.7	110	80	26	18	65		
SICILY ISLAND																							
2 LM	51	35	1.06	46	4.9	86	22.8	6.0	6.0	4	3	3	100 PERCENT	36	5.5	4.1	120	100	26	17	63		
MISSISSIPPI																							
BRUCE																							
2 SLM	41	34	1.04	45	4.8	84	22.9	5.8	2.9	2	3	3	80 PERCENT	35	6.8	5.1	110	90	10	7	59		
GLENDDORA																							
2 LM	51	35	1.12	48	4.5	83	22.7	5.2	4.3	2	3	3	100 PERCENT	35	6.6	5.1	110	90	17	14	60		

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (Continued)

Production Area, Classification &				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number				Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin- Poten- tial	
No	Grade	Stple		2.5% span	Unif.		Zero	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		22s or 27 tx
Name & Code				32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	
WESTERN ARIZONA																							
BUCKEYE				41	35	1.07	45	5.0	83	DELTA	16	3.4	2	3	100	35	5.8	4.3	120	90	20	16	62
MARICOPA				31	34	1.08	44	4.9	84	DELTA	16	2.6	1	3	100	31	5.5	3.9	120	90	17	13	53
PARKER				31	34	1.08	44	4.5	86	DELTA	16	2.7	1	3	100	38	5.7	4.3	120	90	19	13	62
SAFFORD				31	35	1.11	44	4.5	83	DELTA	16	2.2	1	3	100	36	6.4	5.2	120	80	18	12	67
YUMA				31	34	1.06	44	4.4	85	DELTA	16	2.5	1	3	100	34	5.5	4.1	110	90	28	21	59
CALIFORNIA				41	35	1.07	47	4.6	99	ACALA	4-42	3.0	2	3	100	48	5.5	4.4	120	90	24	15	76
BAKERSFIELD				41	36	1.14	45	4.2	95	ACALA	SJ-1	3.5	1	3	100	48	5.6	4.5	120	90	24	20	75
BUTTONWILLOW				41	35	1.10	43	4.0	96	ACALA	SJ-1	3.2	1	3	100	43	5.4	4.1	110	80	32	24	70
CORCORAN				31	36	1.11	46	4.0	96	ACALA	SJ-1	2.9	1	3	100	46	5.6	4.4	110	90	17	12	75
LOST HILLS				31	36	1.14	45	4.3	96	ACALA	SJ-1	3.0	1	3	100	45	5.6	4.4	100	70	34	27	78
TULARE				41	36	1.13	46	4.1	96	ACALA	SJ-1	3.2	2	3	100	49	5.6	4.6	120	90	19	16	79
VISALIA				31	35	1.13	46	4.4	101	ACALA	SJ-1	1.6	1	3	100	48	5.4	4.2	120	100	16	12	75

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Style	Name & Code	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten- tial	
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx				
																				In	Pct		Rdg
32s																							
WESTERN				AREA --- (Continued)																			
CALIFORNIA --- (Continued)																							
WESTMORLAND				DELTA PINE 16																			
1	MID	31	34	1.05	43	4.5	88	23.7	6.1	2.1	1	3	5.1	104	33	5.6	4.0	120	100	17	16	56	
WEST TEXAS				HOPICALA																			
EL PASO				100 PERCENT*																			
2	MID	31	36	1.08	45	4.3	96	25.6	6.0	2.3	1	3	4.9	124	45	5.9	4.7	110	80	21	16	66	

* 100 percent selected for tests, less than 100 percent in the area.

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
No	Sample Number		Stple	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C and Waste	Strength		Elongation		Appearance Index		Imprct'ns		Spin. Potent-ial			
	Grade	Name & Code		2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx				
SOUTHEASTERN AREA																									
ALABAMA																									
3	LM	LT SP	52	35	1.14	45	4.9	84	23.2	5.2	5.6	3	3	10.1	93	5.5	4.2	100	80	28	21	57			
														100 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	5.8	4.5	110	90	18	11		
GEORGIA																									
DANIELSVILLE																									
2	SLM		41	35	1.14	45	4.7	84	24.1	5.9	3.5	2	3	8.0	113	7.0	5.6	110	90	12	9	63			
														100 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	6.8	5.7	120	100	7	5		
NORTH CAROLINA																									
SHELBY																									
2	SLM		41	36	1.18	46	4.4	82	23.0	6.0	4.4	2	3	8.0	116	6.9	5.7	110	90	19	15	72			
														100 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	7.3	6.1	120	100	10	7		
SOUTH CAROLINA																									
RIDGE SPRING																									
3	LM		51	35	1.17	45	4.2	82	23.6	6.3	5.5	3	2	9.0	114	6.7	5.4	100	70	20	16	70			
														100 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	7.2	6.1	120	100	5	3		
4	SGO	PLUS	60	35	1.14	44	4.3	84	24.2	6.0	5.9	3	2	9.0	112	6.8	5.3	100	70	31	25	66			
														100 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	7.1	5.7	130	100	14	9		
WESTERN AREA																									
NEW MEXICO																									
CARLSBAD																									
1	MID		31	37	1.15	45	4.0	90	27.9	5.7	2.3	1	3	6.7	135	6.9	5.5	110	90	12	10	83			
														100 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	7.0	5.5	110	100	6	5		
DEXTER																									
1	SLM		41	38	1.21	46	3.7	97	29.0	5.2	3.0	1	3	8.3	140	6.7	5.4	70	60	56	46	70			
														100 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	6.7	5.5	70	60	40	32		
WEST TEXAS																									
FORT STOCKTON																									
1	SLM		41	37	1.14	45	4.0	98	28.8	4.9	3.3	2	3	7.4	132	6.2	5.5	90	60	35	31	78			
														75 PERCENT											
														27 tx	12 tx	50s or 12 tx	22s or 27 tx	7.0	5.4	100	190	19	18		

* Comber Waste and Combed Yarn Data
1/100 percent selected for tests, less than 100 percent in the area.